

## REMARKS

Claims 3-12, 15-24 and 26-31 are pending in the application. Claims 3, 7, 15, 19 and 26-28 have been amended. Claims 29-31 are newly added. Reconsideration of this application is respectfully requested.

The Office Action at paragraph 7 objects to claims 26-28. Applicants appreciate the Examiner's suggested amendments concerning the objections set forth in paragraph 2. Claims 26-28 have been so amended. Therefore, it is respectfully submitted that the objection is obviated by the amendment and should be withdrawn.

The Office Action rejects claims 3-12, 15-24 and 26-28 under the first paragraph of 35 U.S.C. 112 as failing to comply with the written description requirement. The Examiner contends that the claims recite subject matter that was not described in the original specification.

With respect to independent claims 26-28, the Examiner contends that there does not appear to be any support in Applicants' original specification and drawings for "collecting with a monitor said output data of an industrial process and providing said output data to said computer" or for other recitations of output data throughout the claims. This contention is without merit. At page 5 of the specification, lines 5 and 6, in describing Fig. 1, it is stated:

"Monitor 24 monitors a process 28 and provides process data to computer 22."

An exemplary industrial process is shown in Figs. 3-5 and described in the accompanying description. The specification at page 7, lines 1-17, contains the following:

“a level indicator LI001 monitors the material level”,  
“a temperature monitor monitors the outside ambient temperature”, and  
“flow rate to tanks ... is monitored by a flow analyzer FI1002”.

The output data of the Figs. 3-5 example of industrial process 28 is described in further detail at page 10, lines 4-15. From these figures and the above noted specification references, it is clear that the original specification and drawings support the collecting step of claims 26-28. For example, monitor 24 in Fig. 1 comprises devices T101, LI101, FI1001, FI1002 and A1001 and the outputs of these devices comprise output data of industrial process 22.

Also with respect to independent claims 26-28, the Examiner contends that there does not appear to be any support for “to organize separate storage volumes of said database for said classified attribute types”. This contention is without merit. Support is found at page 3, lines 6 and 7, page 12, lines 13-24, and page 14, lines 22-28.

With respect to claims 3 and 15, the Examiner contends that there is insufficient support in Applicants' specification for “another storage volume of said database is organized for a first one of said identified events”. The quoted language has been deleted from claims 3 and 15. Therefore the rejection on this ground is obviated by the amendment.

With respect to claims 7 and 19, the Examiner contends that there is insufficient support in Applicants' specification for “one defined attribute type corresponding to a first one of said storage volumes are static”. Support is found at page 13, lines 4-19 and in Fig. 8. Claims 7 and 19 have been amended to more clearly state the first wherein recitation.

For the reasons set forth above, it is respectfully submitted that the rejection of claims 3-12, 15-24 and 26-28 under the first paragraph of 35 U.S.C. 112 is erroneous and should be withdrawn.

The Office Action rejects claims 3-12, 15-24 and 26-28 under the second paragraph of 35 U.S.C. 112 as indefinite.

With respect to claims 26-28, the Examiner contends that the phrase "attributes thereof" is unclear. Claims 26-28 have been amended to remove "thereof". Therefore, the amendment obviates the rejection on this ground.

With respect to claims 26-28, the Examiner contends that there is insufficient antecedent basis for "said identified events, activities and attributes" in section (b). Section (b) of claims 26-28 has been amended to recite: "said events, activities and attributes that are identified by step (a)", which has antecedent basis in step (a). Therefore, the amendment obviates the rejection on this ground.

With respect to claims 26-28, the Examiner contends that it is unclear in section (d) "how the data structure is used to permit access to the database by activities, events and attributes to store data in response to a request to retrieve data". The Examiner is misreading section (d), which is set forth in parsed form below:

"(d) to use said data structure in a manner that permits access to said database by said activities, events and attributes that are identified by step (a)  
to store said output data in said storage volumes according to said data structure and

in response to a request to retrieve from at least one of said storage volumes that output data that corresponds to at least one of said identified activities, events or attributes that is included in said request”.

Thus, it is clear that the data structure is used in a manner to permit access to the database by the activities, events and attributes that are identified by step (a) to store and to retrieve. In the case of storing, the output data is stored in the storage volumes according to the data structure and not in response to a request to retrieve data as stated by the Examiner. In the case of retrieval, in response to a request, output data is retrieved from the database that corresponds to at least one of the identified activities, events or attributes that is included in said request. Therefore, section (d) of claims 26-28 is clearly in compliance with the second paragraph of 35 U.S.C. 112.

With respect to claims 3 and 15, the Examiner contends that there is insufficient antecedent basis for “another storage volume”. Claims 3 and 15 have been amended by removing “another storage volume”. Therefore, the amendment obviates the rejection on this ground.

With respect to claims 4 and 16, the Examiner contends that “it is unclear how one attribute could be common to one attribute type”. The Examiner is directed to Applicants’ Fig. 7, in which the attribute “Time Stamp” of a plurality of alarm events is common to the event type “Alarm”. For this reason, the Examiner’s contention is without merit.

For the reasons set forth above, it is respectfully submitted that the rejection of claims 3-12, 15-24 and 26-28 under the second paragraph of 35 U.S.C. 112 is either erroneous or obviated by the amendment and should be withdrawn.

The Office Action rejects claims 3-12, 15-24 and 26-28 under 35 U.S.C. 102(b) as anticipated by U.S. Patent No. 5,613,113 to Goldring, hereafter Goldring.

This rejection is respectfully traversed. Goldring lacks steps/elements recited in amended independent claims 26-28. In fact, these recited steps/elements were also in independent claims 26-28 as rejected by the Office Action.

Goldring lacks an industrial process and its output data as recited in amended independent claims 26-28. The Examiner contends that Goldring discloses an industrial process, citing column 1, lines 38-41, and column 3, lines 27-31. The Examiner combines portions of these two citations to conclude that a bank transaction procedure is an industrial process. This conclusion is without any supporting evidence of record. In fact, a banking transactional process is a *financial service* and not an *industrial process*, such as industrial process 28 of Fig. 1 and its exemplary industrial process shown in Figs. 3-5 of Applicants' application.

With respect to the collecting of the output data of the industrial process, the Examiner ignores the plain language of amended independent claims 26 and 27, which recites that the output data is collected by a *monitor* and provided to a computer. Goldring discloses a computer, but does not disclose a monitor that collects output data of the banking system referred to in Goldring's Background of the Invention at column 1, lines 38-41. Therefore, Goldring lacks the "collecting" step and "monitor" recited in amended independent claims 26 and 27.

Goldring also lacks the identifying, classifying and organizing steps of amended independent claims 26-28. Goldring's program uses some of the input data referenced by the Examiner for storage as time series data in activity log 32 and some other input data to retrieve the previously stored time series data from

the activity log. Goldring does not use this data to identify, classify or organize tables 36, 42, 44, 50, 52 and 54 of Fig. 2.

Goldring also lacks step of using the data structure to access the database for the storage and retrieval of the output data of the industrial process as recited in amended independent claims 26-28. As discussed above, Goldring does not disclose an industrial process or the output data of the industrial process. Moreover, Goldring stores the input data from the banking system in a time series manner as shown in Fig. 3 (noting that Fig. 3 omits the data stored in addresses 1-99, 101-199, 201-299 and so on for convenience). This is in contrast to the claimed language in which the data structure is used in a manner to access the data base to store the output data of the industrial process in the storage volumes organized by the organizing step and not in a time series manner.

Moreover, Goldring's request to read causes a retrieval of the time series data between two time markers and not from at least one of said storage volumes of the database as claimed in amended independent claims 26-28.

Dependent claims 3 and 15 have been amended to recite that at least one of the attribute types is a start time type and that at least one of the storage volumes is accessed according to said start time type for storage and retrieval of values of said attributes corresponding to at least one of said events and/or activities. Goldring stores and retrieves time series data and, therefore, does not teach the claimed feature.

Dependent claims 7 and 19 have been amended to recite the classification of values that are always the same as static and the optimizing of storage by omitting the storage of static values. Goldring has no teaching of this claimed feature.

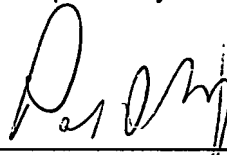
For the reason set forth above, it is submitted that the rejection of claims 3-12, 15-24 and 26-28 under 35 U.S.C. 102(b) as anticipated by Goldring is obviated by the amendment and should be withdrawn.

Newly presented claims 29-31 depend from amended independent claims 28, 26 and 27, respectively. Claims 29-31 recite that the monitor comprises a sensor that receives a time varying signal as an output of the industrial process and provides it to the computer as at least a portion of the output data of the industrial process. Goldring does not disclose a sensor as claimed. Accordingly, it is submitted that claims 29-31 distinguish from the cited art and are, therefore, allowable.

It is respectfully requested for the reasons set forth above that the objection to the claims and that the rejections under 35 U.S.C. 112 and 35 U.S.C. 102(b) be withdrawn, that claims 3-12, 15-24 and 26-31 be allowed and that this application be passed to issue.

Respectfully Submitted,

Date: 4/30/07



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